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**CLAIMS** 

What is claimed is:

1. An interactive tool for manipulating at least one deployment

descriptor, comprising:

a first user interface capable of rendering a hierarchical representation of the at

least one deployment descriptor, wherein a component of the representation can be

selected by a user;

a second user interface capable of rendering a user-editable representation of

the selected component;

wherein the hierarchical representation of the at least one deployment

descriptor includes a logical representation of application resources; and

wherein the interactive tool is capable of automatically repairing a first

deployment descriptor of the at least one deployment descriptors if the first

deployment descriptor is defective.

2. The interactive tool of claim 1, further comprising:

a third user interface capable of rendering an error message.

3. The interactive tool of claim 2 wherein:

user selection of the error message can cause the second user interface to

render a user-editable representation of the at least one deployment descriptor

component that is in error.

4. The interactive tool of claim 1, further comprising:

a parser capable of generating a representation of the at least one deployment

descriptor;

a generator capable of creating the at least one deployment descriptor; and

a validator capable of validating the at least one deployment descriptor.

5. The interactive tool of claim 4 wherein:

the validator is capable of generating an error when it encounters a syntactic or

semantic fault in the at least one deployment descriptor.

6. The interactive tool of claim 1, further comprising:

a builder component capable of automatically updating the at least one deployment descriptor to reflect one or more changes in at least one source code file.

7. The interactive tool of claim 1 wherein:

the hierarchical representation can include information pertaining to at least one of: a Java<sup>TM</sup> archive (JAR), a Web Archive (WAR), an Enterprise Archive (EAR), and a Java<sup>TM</sup> Connector Architecture Component (RAR).

8. The interactive tool of claim 1 wherein:

the at least one deployment descriptor can be expressed as an Extensible Markup Language document.

9. An interactive tool for manipulating at least one deployment descriptor, comprising:

a first user interface capable of rendering a hierarchical representation of the at least one deployment descriptor, wherein a component of the representation can be selected by a user;

a second user interface capable of rendering a user-editable representation of the selected component;

a third user interface capable of rendering an error message;

wherein the hierarchical representation of the at least one deployment descriptor includes a logical representation of application resources; and

wherein user selection of the error message in the third user interface can cause the second user interface to render a user-editable representation of the at least one deployment descriptor component that is in error.

10. The interactive tool of claim 9, further comprising:

a parser capable of generating a representation of the at least one deployment descriptor;

a generator capable of creating the at least one deployment descriptor; and a validator capable of validating the at least one deployment descriptor.

11. The interactive tool of claim 10 wherein:

the validator is capable of generating an error when it encounters a syntactic or semantic fault in the at least one deployment descriptor.

### 12. The interactive tool of claim 9, further comprising:

a builder component capable of automatically updating the at least one deployment descriptor to reflect one or more changes in at least one source code file.

#### 13. The interactive tool of claim 9 wherein:

the hierarchical representation can include information pertaining to at least one of: a Java<sup>TM</sup> archive (JAR), a Web Archive (WAR), an Enterprise Archive (EAR), and a Java<sup>TM</sup> Connector Architecture Component (RAR).

### 14. The interactive tool of claim 9 wherein:

the at least one deployment descriptor can be expressed as an Extensible Markup Language document.

15. A method for providing an interactive tool for manipulating at least one deployment descriptor, comprising:

providing a first user interface capable of rendering a hierarchical representation of the at least one deployment descriptor, wherein a component of the representation can be selected by a user;

providing a second user interface capable of rendering a user-editable representation of the selected component;

providing a third user interface capable of rendering an error message;

wherein the hierarchical representation of the at least one deployment descriptor includes a logical representation of application resources; and

wherein user selection of the error message in the third user interface can cause the second user interface to render a user-editable representation of the at least one deployment descriptor component that is in error.

# 16. The method of claim 15, further comprising:

providing a parser capable of generating a representation of the at least one deployment descriptor;

providing a generator capable of creating the at least one deployment

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descriptor; and

providing a validator capable of validating the at least one deployment descriptor.

### 17. The method of claim 16 wherein:

the validator is capable of generating an error when it encounters a syntactic or semantic fault in the at least one deployment descriptor.

# 18. The method of claim 15, further comprising:

providing a builder component capable of automatically updating the at least one deployment descriptor to reflect one or more changes in at least one source code file.

### 19. The method of claim 15 wherein:

the hierarchical representation can include information pertaining to at least one of: a Java<sup>TM</sup> archive (JAR), a Web Archive (WAR), an Enterprise Archive (EAR), and a Java<sup>TM</sup> Connector Architecture Component (RAR).

# 20. The method of claim 15 wherein:

the at least one deployment descriptor can be expressed as an Extensible Markup Language document.

21. A machine readable medium having instructions stored thereon that when executed by a processor cause a system to:

provide a first user interface capable of rendering a hierarchical representation of the at least one deployment descriptor, wherein a component of the representation can be selected by a user;

provide a second user interface capable of rendering a user-editable representation of the selected component;

provide a third user interface capable of rendering an error message; and wherein the hierarchical representation of the at least one deployment descriptor includes a logical representation of application resources.

#### 22. The machine readable medium of claim 21 wherein:

user selection of the error message in the third user interface can cause the second user interface to render a user-editable representation of the at least one deployment descriptor component that is in error.

23. The machine readable medium of claim 21, further comprising instructions that when executed cause the system to:

provide a parser capable of generating a representation of the at least one deployment descriptor;

provide a generator capable of creating the at least one deployment descriptor; and

provide a validator capable of validating the at least one deployment descriptor.

24. The machine readable medium of claim 23 wherein:

the validator is capable of generating an error when it encounters a syntactic or semantic fault in the at least one deployment descriptor.

25. The machine readable medium of claim 21, further comprising instructions that when executed cause the system to:

provide a builder component capable of automatically updating the at least one deployment descriptor to reflect one or more changes in at least one source code file.

26. The machine readable medium of claim 21 wherein:

the hierarchical representation can include information pertaining to at least one of: a Java<sup>TM</sup> archive (JAR), a Web Archive (WAR), an Enterprise Archive (EAR), and a Java<sup>TM</sup> Connector Architecture Component (RAR).

27. The machine readable medium of claim 21 wherein:

the at least one deployment descriptor can be expressed as an Extensible Markup Language document.